



SERVICE BULLETIN

from: TRIO-KENWOOD COMMUNICATIONS, INC.

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SUBJECT: Making the MC-45 Microphone Work on the TR-7400A DATE May 22, 1979

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The MC-45 Touch Tone Microphone is supplied with a 5 pin connector installed on it. This allows it to be used with the TR-7600 and TR-7625 2M FM transceivers. The MC-45 may also be used with the TR-7400 if the microphone plug is changed to the 4 pin type used on the TR-7400A (E07-0403-05) and the microphone socket on the TR-7400A is modified to supply power to the microphone.

The 5 pin microphone connector is changed so the PTT ground and microphone ground wires are connected together on the 4 pin plug. This means the wires on pins 4 and 5 of the 5 pin plug will be connected to pin 3 of the 4 pin plug. The other PTT lead (on pin 2) would go to pin 2. The microphone hot lead goes from pin 1 to pin 1. The power lead (on pin 3) would be connected to pin 4 of the 4 pin plug.

The TR-7400A modification requires removing the front panel and Display Unit (X54-1210-10) so you may get to the microphone socket. The switch board may not be removed.

The front panel is removed by taking off all the knobs first. The "MHz" switch knob is push-on type. All the other knobs are held on by set screws. (Be sure to note the position they are in so they will be reinstalled correctly.) The front panel is then removed by taking out the 4 screws (2 on each side) that hold the front panel on. You should remove the volume/squelch control at this time by loosening the nut and sliding the control up from the sub-panel.

Unplug all 6 display digit boards from the Display Unit (X54-1210-10). Be sure to keep the digit boards in order, as there are 4 different types used. The Display Unit is secured by 4 screws. Three of these screws are visible now. The screw that is nearest the S-meter also holds a bracket for 2 LED's. Remove this screw and carefully lift out the bracket. This will reveal the fourth screw. Remove the three screws that are left holding the Display Unit in place. The Display Unit may now be lifted out by the back of the circuit board to give you enough room to work on the microphone connector.

There is a jumper wire between pins 3 and 4 on the microphone socket. Remove this jumper. Pin 4 is the lower of these two pins. Install a wire from pin 4 to terminal C-9 on the TX Unit (X56-1210-10).

Reinstall the Indicator Unit (X54-1210-10) and replace the digit boards. Put the volume/squelch potentiometer back in place, next mount the front panel and knobs. This completes the modification.

The modified MC-45 microphone may now be connected to the TR-7400A. Depressing any key on the keypad will activate the PTT circuit and the tone circuit. There is also a short delay of $\frac{1}{2}$ second that the PTT circuit will remain closed after the key has been released. This will allow you to key up several numbers without dropping the carrier.

JRJ/yn